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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/840,042

05/06/2004

Mark Edwin Forry

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27752

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06/05/2008

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EXAMINER

CORDRAY, DENNIS R

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/840,042	Applicant(s) FORRY ET AL.	
	Examiner DENNIS CORDRAY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's amendments and arguments, filed 2/21/2008, have overcome the rejection of Claims 1, 5 and 7-15 under 35 U.S.C. 112, 2nd par. The remaining rejections over the cited prior art, however, are maintained.

Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that Chen's teaching that its latex pattern is applied nonuniformly does not teach that the latex is present on the surface of its basesheet in a random pattern, but that the latex is applied only to the most elevated portions of the basesheet which are in a pattern on the surface. Applicant also argues that the drawings support the latex present on the surface in a pattern. Applicant also argues that Chen teaches using a template or shield to direct the latex to the most elevated portions.

As discussed in the rejections, Chen et al discloses applying latex nonuniformly as a hydrophobic material to the upper surface of the basesheet. A template or shield is not disclosed with regard to applying the hydrophobic material in liquid form, but is disclosed as a preferable option when applying the latex as an adhesive by spray or swirl nozzles, mist, aerosol or droplets to the basesheet. In some embodiments, the hydrophobic material is deposited on relatively elevated regions of the web, such as the light gray or white regions shown on the height map of Figure 12 (col 32, lines 41-46). Figure 12 shows light gray and white regions that appear semi-uniform in spacing in some areas and random in other areas. Thus, the application of the hydrophobic

Art Unit: 1791

material on the surface of the sheet would also be expected to form a semi-uniform pattern in some areas and a random pattern in other areas. In some embodiments, the hydrophobic material is applied to a portion of the most elevated regions (col 33, line 64 to col 34, line 3). Alternatively, Chen et al discloses an example wherein the adhesive is applied randomly to cover a portion of the sheet in scattered patches (col 45, lines 36-54, Examples 11 and 12). One of ordinary skill in the art reading the disclosure of Chen et al would readily envision and find obvious the application of latex in random patterns.

Claim Rejections - 35 USC § 102 and 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5990377) in view of Lin et al (5944273) and evidenced by Swoboda et al (6740373).

Claims 1, 5 and 7: Chen et al discloses a patterned fibrous structure or basesheet, which can be used in an absorbent article such as feminine pads, diapers, towels, wipes, or other sanitary tissue product (Abs, col 2, line 64 to col 3, line 6). The structure comprises a latex either as a hydrophobic material or as an adhesive (col 5, lines 39-41; col 34, line 48 to col 35, line 24, especially col 35, lines 3-21; col 37, line 53 to col 8, line 26, especially col 38, lines 5-26). The latex can be an ethylene-vinyl acetate copolymer, an acrylic polymer or a styrene-butadiene copolymer. Specific commercial products recited include AirflexTM and NacrylicTM, which are recited as

suitable latexes on p 8 of the instant Disclosure. The latexes have glass transition temperatures (T_g) in the claimed range (see Swoboda et al, 6740373, col 27, Table 5, where a T_g from -7 to 29 °C is listed for several latex formulations of the above described compositions).

As a hydrophobic material, Chen et al discloses that the latex is applied nonuniformly to the upper surface of the basesheet (col 35, lines 22-24), which the Examiner construes to be a random pattern of latex. As an adhesive, the latex is applied only to the most elevated portions of the basesheet to effect bonding between the hydrophilic basesheet and the network of hydrophobic fibers with macroscopic openings therein (col 5, lines 4-46). The adhesives can be applied by spray or swirl nozzles, mist, aerosol or droplets to the basesheet through a template or patterned shield (col 5, lines 49-59). While the patterned shield directs the adhesive presumably to uniformly spaced areas of the basesheet, a spray, mist, aerosol or droplet application inherently creates a random pattern in the applied areas, thus a random pattern of latex is disclosed.

Chen et al discloses that the structure comprises two surfaces, either of both of which can be patterned by deforming the basesheet (Figs 1-3; col 26, lines 34-41). The structure can be wet laid or air laid by standard processes (col 28, lines 55-64; col 29, lines 52-63).

Chen et al discloses the deformation height of an uncalendered and uncreped sheet of greater than 0.5 mm, or 500 μm , with a most preferable range of 0.4 to 1.2 mm, or 400 to 1200 μm (col 31, lines 13-26). Calendering and creping are optional

Art Unit: 1791

treatments (col 36, lines 30-38) and, in a preferred embodiment, are not used at all (col 29, lines 52-54). Thus base sheets having a deformation height of at least 1200 μm are disclosed in preferred embodiments. With no upper limit to the broader disclosure of greater than 500 μm , the deformation height is only limited by the physical ability of the tissue to stretch without tearing.

Chen et al does not disclose the caliper of rolled tissue. Figures 1-3 and 5-6 show structures of Chen et al that cannot nest. Since the patterned sheets have void spaces beneath the raised portions, the effective caliper of the patterned sheets is inherently greater than the caliper of unpatterned sheets having no void spaces or, at least such difference in caliper would have been obvious to one of ordinary skill in the art at the time of the invention.

Chen et al does not disclose that the sheets are rolled.

Lin et al discloses a process for winding uncreped tissue onto rolls (Abs; col 7, line 65 to col 10, line 2). Lin et al teaches that it is a typical procedure in the manufacture of tissue products to wind the web onto a parent roll and later convert the parent roll to a final product, such as rolls of bath tissue or rolls of embossed paper towels (col 1, lines 4-16).

The art of Chen et al, Lin et al and the instant invention is analogous as pertaining to making patterned tissue paper. It would have been obvious at the time of the invention to make a sanitary tissue product in roll form, such as rolls of bath tissue or rolls of paper towels, from the tissue of Chen et al in view of Lin et al as a typical end product.

Claim 1 is a product-by-process claim. The product of Chen et al in view of Lin et al appears to be the same as or similar to the claimed product, a rolled patterned tissue product comprising latex, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). "In the event any differences can be shown for the product of the product-by-process claim 1 as opposed to the product taught by Chen et al in view of Lin et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)"

Claims 8 and 9: Chen et al discloses in some embodiments that the basesheet has substantially uniform density for good absorption (col 27, lines 38-43). In some embodiments, the structure comprises an underlying fibrous structure that has a pattern of densified regions imparted by embossing or other techniques, thus the structure can have regions of high and low density (col 27, line 54 to col 28, line 3).

Claim 10: Chen et al does not disclose the latex being substantially present in the high density regions of the structure. Chen et al discloses multiple-ply structures wherein the layers can be joined by adhesives (col 36, line 64 to col 37, line 11). Figures 2-3 show such structures. It would have been obvious to one of ordinary skill in the art to use the latex already disclosed as an adhesive (col 5, lines 39-41; col 38, lines 1-6) to join the layers together. Where the lower areas of the basesheet joins either

another layer or the lower areas of a second inverted basesheet, an area of higher density is created because there is no air pocket, thus the latex adhesive would be concentrated more in the high density areas.

Claim 11: In some embodiments, the basesheet has protrusions or deformations extending above and below the plane of the sheet. Thus, both sides are deformed, the depth of deformation for each side being within the claimed range, as discussed above for Claim 1 (col 31, lines 13-26).

Claims 12 and 15: Chen et al does not disclose the HFS absorbency or the wet burst strength of the tissue. The structure of Chen et al is substantially identical to the claimed structure. It would have been obvious to one of ordinary skill in the art at the time of the invention to obtain the claimed properties of HFS absorbency and wet burst strength because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

Claims 13 and 14: Chen et al discloses the stretch in both cross direction and machine direction of greater than 10% (col 31, lines 30-39). Figure 16 shows the density and basis weight of sheets made. Dividing the basis weight by the density gives the caliper of the sheets (with appropriate unit conversion) from 23.5 to 25 mils.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Cordray/
Examiner, Art Unit 1791

/Eric Hug/
Primary Examiner, Art Unit 1791